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Multisystemic Therapy for Youths with Problem Sexual Behaviours

Empirical, Theoretical, and Clinical Foundations

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Introduction

Sexual crimes committed by youths present significant problems at several levels of analysis, and these problems argue for the development of effective treatment approaches. On a personal level, youths who commit sexual offences experience numerous psychological problems and also reduced educational and occupational opportunities (Ronis & Borduin, 2007). Moreover, sexual offences perpetrated by youths have extremely detrimental emotional, physical, and economic effects on victims, their families, and the larger community. Indeed, although arrests for sexual crimes are relatively rare, accounting for less than 1% of all arrests (Federal Bureau of Investigation, 2013), these crimes are among the most devastating to victims (Chapman, Dube, & Anda, 2007; Letourneau, Resnick, Kilpatrick, Saunders, & Best, 1996). Furthermore, the economic impact of sexual crimes is substantial, including costs for the incarceration of offenders and treatment of victims (Cohen, Miller, & Rossman, 1994; Post, Mezey, Maxwell, & Wibert, 2002). Therefore, effective treatment may not only benefit the youth and his or her family but may also save many persons from victimization.

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On an epidemiological level, youths under the age of 18 years account for approximately 17% of all arrests for sexual crimes, not including prostitution (Federal Bureau of Investigation, 2013). This arrest statistic is especially disturbing when one considers that the ratio of self-reported to adjudicated sexual crimes by juveniles is approximately 25:1 (Elliott, 1995). There is also evidence that about half of all adult sexual offenders commit their first sexual offence during adolescence (Zolondek, Abel, Northey, & Jordan, 2001) and that juvenile sexual offenders are more likely than juvenile non-sexual offenders and non-offending adolescents to commit sexual offences as adults (Hagan, Gust-Brey, Cho, & Dow, 2001). Accordingly, juveniles who sexually offend are important to target for interventions, given the potential public welfare benefits of preventing further sexual crimes among these youths.

On a social services level, juveniles who are adjudicated for sexual offences consume much of the resources of the criminal justice, educational, and mental health systems (Melton, Lyons, & Spaulding, 1998). Nevertheless, few empirically supported interventions exist to treat these youths in spite of a proliferation of untested specialized programmes that are delivered at considerable cost to the public treasury (Hanson et al., 2002; Reitzel & Carbonell, 2006). Moreover, youths who commit sexual offences often have continued contact with the criminal justice system well into adulthood (Ronis & Borduin, 2013). Hence the development of effective treatments for these youths may help to free resources to address other important problems of children and their families.

Research suggests that juvenile sexual offenders have more in common with other delinquents than is generally assumed and, like other offenders, experience problems in multiple domains, including family, peer, and school contexts (Becker, 1998; Ronis & Borduin, 2007). In addition, approximately 92% of juvenile sexual offenders also commit non-sexual crimes (Butler & Seto, 2002; Elliott, 1995). Such findings suggest that effective treatments for juvenile non-sexual offending, particularly those that are comprehensive, hold promise in treating juvenile sexual offending. One such approach is multisystemic therapy (MST; Henggeler & Borduin, 1990; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009b), an intensive family- and home-based treatment that addresses multiple determinants of serious antisocial behaviour in youths. MST has received extensive empirical support as an effective treatment for violent and chronic criminal behaviour in youths (for a review, see Henggeler, 2011).

The primary purpose of this chapter is to provide an overview of our adaptation of MST to the treatment of youths with criminal and non-criminal sexual behaviour problems, known as multisystemic therapy for problem sexual behaviours (MST-PSB). More specifically, we present the empirical, theoretical, and clinical foundations of MST-PSB and also the features that make the model well suited for treating youths with problem sexual behaviours. It should be noted that although MST-PSB primarily serves juvenile sexual offenders, we use the term 'problem sexual behaviour' to describe youths who engage in serious non-normative sexual behaviours, whether formally adjudicated or not, that either victimize others or place others at risk of victimization. The range of deviant sexual behaviours encompassed by this term includes non-aggressive sexual acts against others such as the fondling of a younger child in the context of an ongoing relationship, and aggressive sexual acts towards others such as the violent rape of a peer. For our purposes, non-normative sexual behaviours, such as

excessive or public masturbation, would not be considered a problem sexual behaviour unless it did or had the potential to victimize others, or was part of a larger pattern of behaviours involving sexual victimization of others. We believe that the use of the term 'problem sexual behaviour' is less stigmatizing and incendiary than the term 'sexual offender'. However, we still refer to 'juvenile sexual offenders' when reviewing empirical studies that required an adjudicated sexual offence for inclusion in the respective samples (as do most of the studies on correlates and treatments of sexual offending).

The chapter begins with a brief description of the empirical underpinnings and theoretical foundations of the MST-PSB approach. Next, an overview of clinical interventions in MST-PSB is provided, describing how MST-PSB is operationalized (i.e., specified) and delivered to youths and families (using a home-based model of service delivery). Findings from randomized clinical trials that demonstrate the clinical and cost-effectiveness of MST-PSB are then summarized, followed by a description of how MST-PSB can be successfully transported to community-based provider organizations using extensive quality assurance procedures. Finally, several challenging research issues that should be considered in the development of effective treatments for youths with problem sexual behaviours are highlighted.

Empirical Foundations of MST-PSB

The development of effective interventions for juveniles who sexually offend requires an understanding of the correlates and causes of sexual offending in youths. Most studies that have examined the characteristics of juvenile sexual offenders are characterized by relatively serious methodological limitations (see Becker, 1998; Ronis & Borduin, 2007), including a lack of appropriate comparison groups (e.g., juvenile offenders who have not committed sexual offences), failure to examine differences between important subgroups of sexual offenders (e.g., youths with younger versus older victims, youths with multiple versus no prior arrests), and reliance on data derived from clinical impressions, unstandardized assessment instruments, and youth self-reports. Notwithstanding these methodological limitations, research conducted to date indicates that multiple characteristics of individual youths and their social systems (family, peers, school) are linked with juvenile sexual offending.

At the individual youth level, juvenile sexual offenders report rates of emotional and behavioural problems (e.g., internalizing problems, externalizing behaviours) that are similar to those of non-sexually offending delinquent youths and higher than those of non-delinquent youths (e.g., Ronis & Borduin, 2007). Likewise, at the family level, research has indicated that families of juvenile sexual offenders evidence lower levels of positive communication and warmth, lower levels of parental monitoring, and higher rates of parent–child and interparental conflict than do families of non-delinquent youths (e.g., Blaske, Borduin, Henggeler, & Mann, 1989); these results are also consistent with findings for families of juvenile non-sexual offenders (e.g., Ronis & Borduin, 2007). At the peer level, studies have shown that juvenile sexual offenders are more likely to be socially inept and isolated from same-age peers than are other juvenile offenders or non-delinquent youths (e.g., Blaske et al., 1989), which may lead juvenile sexual offenders to form relationships with younger peers

who are emotionally safer and easier to control. However, one study also found that juvenile sexual offenders, similarly to other delinquent youths, associate more extensively with deviant peers than do non-delinquent youths (Ronis & Borduin, 2007). Finally, at the school level, juvenile sexual offending has been linked with academic and behavioural difficulties in school (e.g., low achievement, behaviour problems, suspension, expulsion), which again are similar to the school-related difficulties found in juvenile non-sexual offenders (e.g., Awad & Saunders, 1991).

The findings from the correlational literature on juvenile sexual offending are consistent with a social–ecological view of behaviour (Bronfenbrenner, 1979) and, for the most part, with findings from the literature on juvenile non-sexual offending. Indeed, the extant literature supports the view that developmental pathways for sexual offending are similar to those for non-sexual offending. It seems clear that juvenile sexual offending is multidetermined and that treatment approaches must have the flexibility to address the known correlates of such offending. We believe that the major limitation of current specialized treatment programmes for juvenile sexual offenders (see McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010) is that they focus almost exclusively on individual youth characteristics (e.g., deviant cognitions, poor social skills) and do not have the capacity to intervene comprehensively at individual, family, peer, and school levels.

Theoretical Foundations of MST-PSB

Family systems theory (Bateson, 1972; Hoffman, 1981; Minuchin, 1985) and the theory of social ecology (Bronfenbrenner, 1979) serve as a basis for case conceptualization and treatment planning in MST-PSB. Family systems theory views the family as a rule-governed system in which problematic individual behaviours and symptoms are intimately related to patterns of interaction between family members and must always be understood within the organizational context of the family. To that end, most of the various schools of family therapy attempt to understand how emotional and behavioural problems 'fit' within the context of the individual's family relations and emphasize the reciprocal and circular nature of such relations. Thus, a therapist working from a family systems conceptual framework would consider not only how caregiver monitoring strategies influence youth problem sexual behaviours but also how the problem sexual behaviours of the youth shape the behaviours of the caregivers, and what function the youth's and caregivers' behaviours might serve in the family.

The theory of social ecology (Bronfenbrenner, 1979) expands on the basic tenets of family systems theory by viewing the youth as being nested within a complex of interconnected systems that include the individual youth, the youth's family, and various extra-familial (peer, school, neighbourhood, community) contexts (see Figure 62.1). The youth's behaviour is seen as the product of the reciprocal interplay between the youth and these systems in addition to the relations of the systems with each other. Thus, although the interactions between the youth and family are seen as important, as in family systems theory, the interactions between the youth and other systems (e.g., peers) and the connections between the systems (e.g., interactions between caregivers

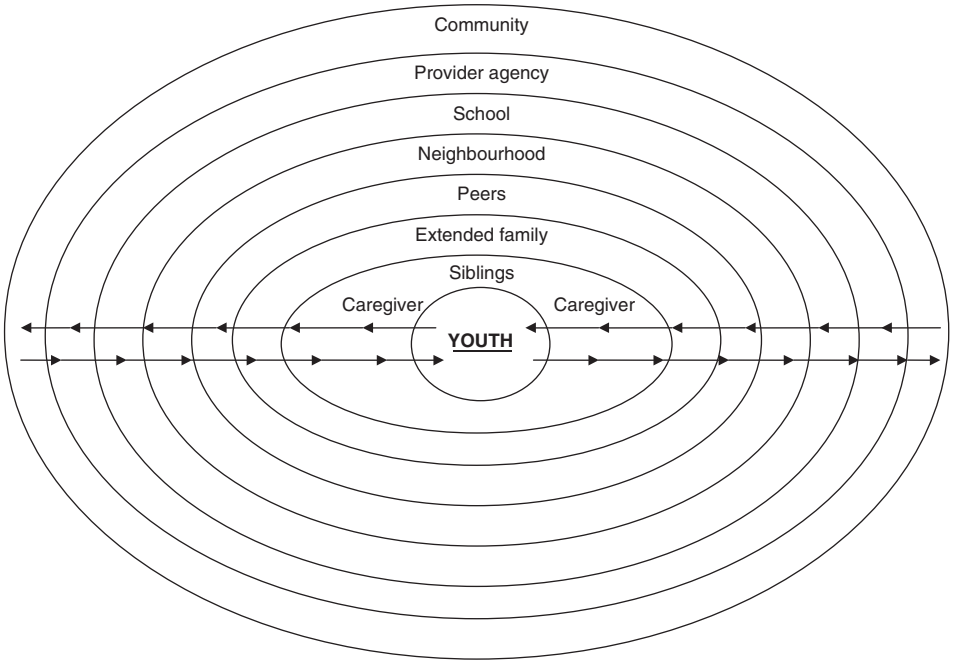

Figure 62.1 Social–ecological environment. The youth and family are embedded in multiple systems with dynamic and reciprocal influences (represented by arrows) on the behaviour of family members. Youth sexual offending can be maintained by problematic transactions within and/or between any one or combination of these systems.

and staff at the youth's school) are viewed as equally important in maintaining youth problem sexual behaviours. Importantly, social–ecological theory emphasizes the significance of 'ecological validity' in understanding behaviour, that is, the basic assumption that behaviour can be fully understood only when viewed within its naturally occurring context.

Clinical Foundations of MST-PSB

Model of Service Delivery

MST-PSB is usually delivered by a master's level therapist with a caseload of four or five families. The MST-PSB therapist is a generalist who directly provides most mental health services and coordinates access to other important services (e.g., medical, educational, recreational). Although the therapist is available to the family 24 hours per day, 7 days per week, therapeutic intensity is titrated to clinical need, hence the range of direct contact hours per family can vary considerably. In general, therapists spend more time with families in the initial weeks of therapy (daily, if indicated) and gradually taper off (to as infrequently as once per week) during a 5–7-month course of treatment. To remove barriers to service access for this challenging clinical population,

therapists have flexible hours (e.g., evenings, weekends) and deliver treatment in settings convenient for the family (e.g., home, school, community). This model of service delivery is consistent with the family preservation model of service delivery (Nelson & Landsman, 1992) and also promotes the ecological validity of services.

MST-PSB Interventions

MST interventions for juvenile non-sexual offending have been described in a clinical volume (Henggeler & Borduin, 1990) and a treatment manual (Henggeler et al., 2009b). Using well-validated treatment strategies derived from strategic family therapy, structural family therapy, behavioural parent training, and cognitive–behavioural therapy, MST directly addresses intrapersonal (e.g., cognitive), familial (i.e., caregiver–youth and marital relations), and extra-familial (i.e., peer, school, neighbourhood) factors that are known to contribute to youth antisocial behaviour. Biological contributors to identified problems (e.g., major depression, attention deficit hyperactivity disorder) in family members are also identified and, when appropriate, psychopharmacological treatment is integrated with psychosocial treatment. Because different contributing factors are relevant for different youths and families, MST interventions are individualized and highly flexible.

The MST-PSB approach has been described in a supplemental treatment manual (Borduin & Munschy, 2014). The approach is guided by the same strategies and uses many of the same evidence-based techniques as in standard MST but focuses on aspects of the youth's ecology that are functionally related to the problem sexual behaviour. At the family level, MST-PSB interventions often aim to (a) reduce caregiver and youth denial about the sexual offences and their sequelae, (b) remove barriers to effective parenting, (c) help caregivers develop plans for risk reduction, relapse prevention, and victim safety, and (d) promote affection and communication among family members. At the peer level, interventions are conducted by the youth's caregivers, with the guidance of the therapist, and often consist of active support and encouragement of relationship skills and associations with non-problem peers, in addition to substantive discouragement of associations with deviant peers (e.g., applying significant sanctions). Likewise, at the school level, the therapist helps caregivers to develop strategies for monitoring and promoting the youth's academic performance (e.g., establishing improved communication between caregivers and teachers, restructuring after-school hours to promote academic efforts).

There are also some circumstances in which MST-PSB therapists engage in short-term individual treatment with a youth with problem sexual behaviour and/or the youth's caregiver (e.g., continued serious aggressive or impulsive behaviour after systemic interventions have been consistently implemented). In such instances, adolescent cognitive distortions and intellectual deficiencies are assessed as possible contributing factors to the problem behaviour and, when relevant, are targeted using individual cognitive–behavioural interventions (e.g., role-play and perspective-taking exercises, behavioural contingencies, self-monitoring). The therapist makes every effort to implement individual interventions in the presence of caregivers to ensure that the cognitive and behavioural changes initiated during these interventions can be

reinforced and modelled by caregivers and sustained in the home and other settings (e.g., school, neighbourhood). Decisions to pursue individual treatment with a caregiver most often pertain to problems that interfere with caregiver functioning, such as depression, anxiety disorders, substance abuse, and recent or past victimization. In such cases, cognitive–behavioural interventions are often a first choice for individual treatment of a caregiver in the context of MST-PSB. Other interventions are also used in some cases (e.g., psychopharmacological treatment for a serious psychiatric disturbance, multicomponent behaviour therapy for substance abuse).

Treatment Principles

Given that MST-PSB is used with complex cases that present serious and diverse problems in addition to a wide variety of strengths, the treatment does not follow a rigid protocol with session-by-session breakdowns of recommended clinical procedures. Nevertheless, to achieve strong specification, the development and delivery of interventions in MST-PSB is based on nine treatment principles (outlined below). These principles have been outlined in the aforementioned MST clinical volume (Henggeler & Borduin, 1990) and MST treatment manual (Henggeler et al., 2009b). Furthermore, the application of these principles to problem sexual behaviours is described in the MST-PSB manual (Borduin & Munschy, 2014). Therapists and supervisors use the principles to guide case conceptualizations, prioritization of interventions, and implementation of intervention strategies within the MST-PSB model, and treatment fidelity can be evaluated by measuring adherence to the principles.

Principle 1. The primary purpose of assessment is to understand the 'fit' between the identified problems and their broader systemic context. The goal of MST-PSB assessment is to 'make sense' of problem sexual behaviours in terms of their systemic context. Consistent with both the empirically established correlates/causes of juvenile sexual offending and with systemic/social–ecological theories, MST-PSB assessment focuses on characteristics of the individual youth (e.g., distortions in social cognition) and transactions between the youth and the multiple systems in which he or she is embedded (e.g., family, peer, school, and neighbourhood). Targets of intervention in MST-PSB are derived from testable hypotheses formulated from the assessment data. If not fully successful (i.e., the hypothesized relationship is not supported), the MST-PSB team aims to understand the barriers to success and then redesigns and implements new interventions accordingly. This iterative process is followed until treatment goals are achieved or further gains seem unlikely.

Principle 2. Therapeutic contacts emphasize the positive and use systemic strengths as levers for change. Identifying strengths begins during the MST-PSB assessment and focuses on the broad ecology of the youth and family. Staying strength focused means that MST-PSB therapists realistically appraise family members' ability to use their strengths to accomplish tasks while working to develop additional strengths to accomplish goals. Moreover, a consistent and ongoing emphasis on fostering strength-focused attitudes and communications among MST-PSB therapists, supervisors, administrators, and

professionals from other agencies is critical to the reinforcement of strength-focused therapist–family interactions.

Principle 3. Interventions are designed to promote responsible behaviour and decrease irresponsible behaviour among family members. Conceptualizing the purpose of MST-PSB as enhancing responsible behaviour is a point of view that can be readily communicated and understood by diverse groups of individuals, including family members, school personnel, agency colleagues, judges, and legislators. Responsible youths engage in behaviours and activities that help them to become competent members of their families and communities. Responsible caregivers engage in behaviours that prepare their youths to become competent members of these systems. Improvement in caregiver responsibility is almost always linked with improved youth behaviour; hence MST-PSB therapists devote much time to developing and maintaining caregiver responsibility.

Principle 4. Interventions are present focused and action oriented, targeting specific and well-defined problems. MST-PSB interventions emphasize changing the family's present circumstances as a step towards changing future functioning. In light of the serious nature of the problems presented by youths and families referred for MST-PSB, interventions aim to activate the family and their social ecology to make multiple, positive, observable changes. Making and sustaining such changes within the brevity of MST-PSB require a high-energy and action-oriented focus. Targeting well-defined (i.e., objective and measurable) problems and setting well-defined treatment goals keep family members, therapists, and other participants fully aware of the direction of treatment, the criteria used to measure success, and the effectiveness of various interventions.

Principle 5. Interventions target sequences of behaviour within and between multiple systems that maintain the identified problems. This principle orients the MST-PSB therapist towards modifying those aspects of family relations and of the social ecology that are linked with identified problems. Consistent with family systems and social ecological theories, youth behaviour problems are viewed as the product of reciprocal, rule-bound patterns of interaction between people. Thus, whether addressing problematic family interactions or helping to build the family's relations with extra-familial systems (e.g., school, peers), MST-PSB focuses on modifying interpersonal transactions as the mechanism for achieving treatment goals.

Principle 6. Interventions are developmentally appropriate and fit the developmental needs of the youth. Youths and their caregivers have different needs at different periods of their lives, and MST-PSB interventions are designed accordingly. For example, the nature of family-based interventions will vary with the developmental level of the youth. For children and younger adolescents, considerable efforts may be extended to increasing caregiver control. For older adolescents, interventions might be more viable if they focus on preparing the youth for entry into the adult world. The developmental stage of the caregiver is also an important factor when designing interventions. For example, a grandparent who serves in the role of primary caretaker may have different developmental needs than a traditional parent.

Principle 7. Interventions are designed to require daily or weekly effort by family members. A basic assumption of MST-PSB is that therapists can help families resolve their problems more quickly if everyone involved (e.g., caregivers, extended family, siblings, friends, neighbours, and social service personnel) works together diligently. This assumption is predicated on the family and therapist agreeing on and collaborating with the goals of treatment and, by default, agreeing to address any barriers that interfere with achieving these goals. Because intervention tasks occur daily, family members have frequent opportunities to receive positive feedback and praise in moving towards goals. Such reinforcers promote family motivation and maintenance of change. In addition, family empowerment is supported as families learn that they are primarily responsible for and capable of progressing towards treatment goals.

Principle 8. Intervention effectiveness is evaluated continuously from multiple perspectives with providers assuming accountability for overcoming barriers to successful outcomes. This principle requires that the MST-PSB therapist has a continuous and relatively accurate view of treatment progress and, therefore, obtains ongoing and prompt feedback regarding the viability of interventions. If an intervention is not working, prompt feedback allows the therapist and family to consider alternative interventions or alternative conceptualizations of the 'fit' of the targeted problem. Problems can usually be resolved in multiple ways, and MST-PSB therapists are encouraged to consider alternative solutions when the present ones are not effective.

Principle 9. Interventions are designed to promote treatment generalization and long-term maintenance of therapeutic change by empowering caregivers to address family members' needs across multiple systemic contexts. Ensuring that treatment gains will generalize and be maintained is a critical and continuous thrust of MST-PSB interventions. To accomplish this, MST-PSB therapists (a) teach relevant behavioural skills in the environments and under the conditions in which youths and their caregivers will eventually perform the behaviour, (b) encourage and reinforce the development of family members' problem-solving skills, (c) find individuals in the ecology who will reinforce family members' new behaviours and skills across settings (e.g., home, school, community), (d) alert significant others (e.g., teachers, probation officers) to the new behaviours of family members, (e) provide reinforcement when generalization occurs, and (f) allow caregivers and youths to do as much of the development and implementation of interventions as they can. Thus, through emphasizing family empowerment and the mobilization of indigenous adolescent, family, and community resources, the MST-PSB therapist sets the stage for lasting change.

Clinical Effectiveness of MST-PSB

Evaluation of MST outcomes with juvenile non-sexual offenders has been a high priority since the initial development of this treatment model in the late 1970s (for reviews, see Henggeler, 2011; Henggeler et al., 2009b). More recently, researchers have evaluated MST-PSB outcomes with juvenile sexual offenders in an effort to determine whether the MST-PSB model can produce positive results with this clinical population.

Indeed, for both ethical and pragmatic reasons, we believe that mental health services for youths with problem sexual behaviours must be evaluated rigorously before being widely adopted and implemented in the provider community (Letourneau & Borduin, 2008).

Three clinical trials of MST-PSB with juvenile sexual offenders are the only randomized trials that have been conducted with this population. In the first trial (Borduin, Henggeler, Blaske, & Stein, 1990) with a modest sample ($n = 16$), youths and their families were randomly assigned to home-based MST-PSB delivered by doctoral students in clinical psychology versus outpatient individual therapy delivered by community-based mental health professionals. Recidivism results at a 3-year follow-up revealed that MST-PSB was more effective than individual therapy in reducing rates of rearrest for sexual crimes (12.5% versus 75.0%) and in reducing the mean frequency of rearrests for both sexual crimes (0.12 versus 1.62) and non-sexual crimes (0.62 versus 2.25). The favourable effects of MST-PSB supported the viability of further development of this model of intervention.

In a second clinical trial, Borduin, Schaeffer, and Heiblum (2009) evaluated the efficacy of MST-PSB versus usual community services (UCS) for juvenile sexual offenders ($n = 48$) at high risk of committing additional serious crimes. MST-PSB was again delivered by doctoral students in clinical psychology, and treatment in the UCS condition included cognitive–behavioural group and individual therapy administered in a juvenile court setting. Results from multiagent assessment batteries conducted before and after treatment showed that MST-PSB was more effective than UCS in improving family relations (increased cohesion and adaptability), peer relations (increased emotional bonding and social maturity, decreased aggression), and academic performance (improved grades). Moreover, MST-PSB resulted in decreased symptoms in caregivers and youths and decreased behaviour problems in youths. Most importantly, results from an 8.9-year follow-up of rearrest and incarceration data (obtained when participants were on average 22.9 years of age) showed that MST-PSB participants had lower recidivism rates than did UCS participants for sexual (8% versus 46%, respectively) and non-sexual (29% versus 58%, respectively) crimes. In addition, MST-PSB participants had 70% fewer arrests for all crimes and spent 80% fewer days incarcerated than did their counterparts who received UCS.

In the third and largest clinical trial ($n = 127$) with juvenile sexual offenders (Letourneau et al., 2009), youths were randomized to MST-PSB (provided by a private provider agency) or treatment as usual (TAU; cognitive–behavioural group treatment provided by a juvenile probation department). The results of this study consistently supported the ability of MST-PSB to achieve desired outcomes when delivered by a representative community agency (i.e., effectiveness), building on previous studies that demonstrated success under relatively ideal conditions (i.e., efficacy). Indeed, MST-PSB was more effective than TAU in decreasing youths' deviant sexual interest/risk behaviours, delinquency, substance use, externalizing symptoms, and costly out-of-home placements at a 12-month follow-up. More recently, Letourneau et al. (2013) found that the significant reductions in divergent sexual interests, sexual risk behaviours, delinquency, and out-of-home placements (but not substance abuse) for the MST-PSB group were maintained at a 24-month post-recruitment follow-up.

Taken together, the results from these clinical trials suggest that MST-PSB is a promising approach to the treatment of youth problem sexual behaviours. Indeed, the MST-PSB model has been reviewed favourably by highly respected government agencies (Office of Justice Programs, 2014; Substance Abuse and Mental Health Services Administration, 2016) and private organizations (Blueprints for Healthy Youth Development, 2014). The success of MST-PSB, especially in comparison with results from other treatment approaches, is attributed primarily to (a) the match between MST-PSB intervention foci and empirically identified correlates/causes of juvenile sexual offending and other serious antisocial behaviour (e.g., low family warmth, social immaturity, academic difficulties) and (b) the flexible use of well-validated intervention strategies in the natural environment. That is, MST-PSB is effective because it directly addresses the multiple determinants of sexual offending in youths' naturally occurring systems. Treatments that address only a small subset of the multiple factors (i.e., individual, family, peer, school) related to sexual offending or that minimize the ecological validity of interventions (e.g., office-based or institution-based treatment) are more likely to be ineffective.

Dissemination of the MST-PSB Model

Implementation

MST-PSB programmes are typically implemented by public (i.e., mental health, juvenile justice, social welfare) or private service organizations. These organizations contract with MST Associates, the organization that provides training to MST-PSB teams nationally and internationally and ensures that programmes are implemented with fidelity to the MST-PSB model. Before entering a contract with MST Associates, the service organization (including key administrators, supervisors, and therapists) must be fully committed to the philosophical (e.g., definition of the mental health professional's role) and empirical (e.g., accountability for clinical outcomes) framework of the MST-PSB approach. The organization should have distinct, dedicated staff for its MST-PSB programme (i.e., 100% time MST-PSB therapists), including a clinical supervisor who has credible authority regarding clinical decisions and training in the MST-PSB model. Substantial changes in agency policies and staff members' work routines are often required to implement the clinical approach of MST-PSB successfully, and concrete support must be evident from the administration of the service organization (e.g., implementing flexi-time and comp-time policies for staff, scheduling supervision and consultation times, providing highly competitive salaries and incentives).

Prior to programme implementation, MST Associates supports the provider organization in conducting an evaluation of the environment in which programme services will be delivered, planning for actual programme implementation, and establishing written and locally defined programme goals and guidelines. During the early stages of the assessment and planning process, collaborative dialogues are initiated with key stakeholders from court systems, child protection agencies, probation and parole departments, funding agencies, the local school system, and victim advocacy and mental health agencies. Consensus and alignment among stakeholders are sought around

several key issues, including which youths can be safely treated in a community setting, how various agencies involved with the youths will coordinate services, and how programme success will be defined and measured. The two main purposes of coordinating MST-PSB activities with those of other agencies are to (a) integrate services that will lead to favourable clinical outcomes and (b) ensure that the MST-PSB programme is likely to attain a sufficient referral base and concomitant funding.

Quality Assurance

Evidence-based treatments such as MST-PSB can be transported successfully to a community provider organization only when there are specific mechanisms to ensure treatment fidelity. Adherence to treatment parameters, practices, and evaluation protocols is imperative if a provider organization expects to achieve treatment outcomes similar to those obtained in MST-PSB clinical trials.

MST Associates employs a number of quality assurance mechanisms that promote fidelity to the MST-PSB treatment model. First, all MST-PSB teams participate in a comprehensive, ongoing training programme. Therapists and supervisors initially receive 5 days of orientation training in the general MST model, followed by an additional 2 days of training covering the clinical augmentations unique to MST-PSB. This training is followed by quarterly on-site 'booster' training that is designed to fit the unique needs of each MST-PSB team. Second, treatment fidelity to the MST-PSB model is maintained by 2-hour weekly group supervision meetings involving three or four therapists and a clinical supervisor. During these meetings, the treatment team (i.e., therapists, supervisor, and, as needed, a consulting psychiatrist) reviews the goals and progress of each case to ensure the multisystemic focus of therapists' intervention strategies and to identify obstacles to success. Third, each team participates in weekly clinical consultation from an MST-PSB expert to further ensure treatment fidelity, skill building, and positive outcomes. Consultations usually follow group supervision meetings and build upon the quality assurance process initiated by the supervisor. Finally, treatment fidelity in MST-PSB is monitored and managed continuously at multiple levels. Specifically, empirically validated instruments are regularly used to evaluate *therapist adherence* to treatment principles and practices in addition to *supervisor adherence* to established supervision practices. In addition, information regarding *organizational adherence* to established programme-level practices (e.g., caseload size, duration of treatment) and *clinical outcomes* (e.g., percentage of youths living at home or with no new arrests at the time of case closure) is monitored frequently by the MST-PSB expert to promote continuous quality improvement.

Future Directions in Treatment for Youth Problem Sexual Behaviours

This chapter has provided an overview of MST-PSB, a family-based treatment that intensively addresses the multiple determinants of sexual offending in youths' natural ecology. Importantly, research studies have demonstrated that MST-PSB can

successfully reduce both sexual and non-sexual criminality in youths. Of course, given the many problems that youths who sexually offend present for their communities, and the significant costs of providing these youths with interventions that do not produce durable changes, the continued development and refinement of effective intervention programmes such as MST-PSB should be a priority for scientists and policymakers alike. Therefore, we close this chapter by discussing several key research challenges and by offering pertinent recommendations.

First, understanding the theory (i.e., mechanisms) of change that underlies the MST-PSB intervention model is essential to the efficient use of the model and might ultimately help to improve outcomes. To date, one study (Henggeler et al., 2009a) has conducted a rigorous test of the mechanisms of change in a randomized effectiveness trial of MST-PSB with juvenile sexual offenders. The findings of that study were consistent with studies of change mechanisms in MST with juvenile non-sexual offenders (e.g., Huey, Henggeler, Brondino, & Pickrel, 2000), suggesting that changes in caregiver discipline practices and youth association with deviant peers are critical factors in the attenuation of antisocial behaviour (including problem sexual behaviour) in youths. Given the consistency of results across these studies, the most important goal of future research in this area should be to determine the specific components of treatment (e.g., in-session behaviours, protocols) that lead to improved caregiver discipline and disengagement of youths from deviant peers.

Second, clinical trials that have evaluated treatments for youth mental health problems, including sexual offending and other antisocial behaviours, have typically included relatively short (i.e., less than 1–2 years) follow-ups of participant outcomes following treatment completion (for a review, see Weisz et al., 2013). Hence our understanding of the durability of favourable outcomes achieved in most evidence-based treatments for youths is surprisingly limited. Although Borduin et al. (2009) provided the longest follow-up (i.e., 8.9 years) to date of an evidence-based intervention (i.e., MST-PSB) for juvenile sexual offenders, additional studies of long-term treatment outcomes with this population are still needed. Information regarding the lasting benefits of empirically supported treatments could greatly assist policymakers and programme administrators in selecting and implementing mental health programmes for juvenile sexual offenders. However, if treatment effects similar to those observed at shorter-term follow-ups were not maintained over a longer period, then such findings could suggest a need for refinements in treatment, such as providing post-treatment booster sessions or ongoing support services in early adulthood.

Finally, it seems logical to evaluate the economics of MST-PSB, given that treatments that are clinically effective with juvenile sexual offenders are also likely to be cost-beneficial. Although methodologies for conducting economic analyses of mental health interventions have been well articulated (e.g., French, Salome, Sindelar, & McLellan, 2002; Singh, Hawthorne, & Vos, 2001), such work has clearly lagged behind tests of the clinical effectiveness of these interventions. Indeed, only a few studies have examined the costs and benefits of intervention programmes designed for juvenile sexual offenders, and the majority of those studies have included relatively serious methodological limitations. An exception to this overall dearth of studies is a recent cost–benefit analysis (Borduin & Dopp, 2015) based on data from a

randomized clinical trial of MST-PSB (Borduin et al., 2009). The results of this study indicated that every US$1 spent on MST-PSB recovered $48.81 in savings to taxpayers and crime victims in the 8.9 years following treatment. Although encouraging, these findings were based on estimates of treatment costs and outcomes from a single provider site and need to be replicated by other service providers. Moreover, future studies should expand the scope of costs and benefits beyond the criminal justice system to explore the possibility of additional benefits (e.g., reduced use of social welfare services, income tax revenue resulting from increased employment) and also cost shifting to other service sectors (e.g., mental health, primary care) during treatment or follow-up.

In conclusion, our work indicates that MST-PSB can successfully reduce criminal activity and incarceration in youths with problem sexual behaviours and can result in considerable cost savings for taxpayers and crime victims. When considered along with recommendations from national (e.g., Center for Sex Offender Management, 2006) and international (e.g., Miner et al., 2006) organizations, this chapter suggests that family- and community-based interventions, especially those with an already established evidence base in treating youth antisocial behaviour, hold considerable promise in meeting the clinical needs of sexually offending youths. Of course, continued validation and replication are needed for even the most successful treatment approaches. Nevertheless, given the importance of reducing the social and financial consequences of sexual offences committed by youths, we believe that priority should be placed on the evaluation of promising treatment models such as MST-PSB.

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